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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/839,680	04/20/2001	Robin Speed	MS1-600US	1810

			EXAMINER
22801	7590	08/11/2006	CZEKAJ, DAVID J

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ART UNIT	PAPER NUMBER
2621	

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/839,680	SPEED ET AL.
	Examiner	Art Unit	
	Dave Czekaj	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>23 June 2006</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-20</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>6/23/06</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/23/06

has been entered.

Response to Arguments

2.   Applicant's arguments with respect to claims 1-20 have been considered but are

moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Radha et al. (6639943), (hereinafter referred to as "Radha") in view of Rose (6731811)

in further view of Takashima (5754233).

        Regarding claims 1, 8, 9, 10, and 19, Radha discloses an apparatus that

relates to fine granular coding that includes both quality and temporal scalability

(Radha: column 1, lines 11-13). This apparatus comprises "generating a motion

compensated prediction of a region of content" (Radha: figure 7, column 7, lines

49-51, wherein the motion compensated prediction is generated by the motion

estimation block, the region of content is the frames/streams), "receiving an

indication of whether there are first and second quantities of residual samples

remaining" (Radha: figures 5A and 8A, wherein the residual samples are

contained with the enhancement and base layers, the indication is the process

from moving from one layer to the next. The examiner notes that the apparatus

would not move from one layer to the next without all necessary data needed for

further processing. Therefore a move from one layer to the next would indicate

whether there are first and second quantities of residual samples) and "adding

the first quantity of residual samples to the prediction" (Radha: figure 7, column

3, lines 15-27). However, Radha fails to show the subtraction and the indication

comprising values associated with picture level parameters as claimed. Rose

teaches that prior art coding systems cause undesired conflicts when trying to

take advantage of additional information available to the enhancement layer

(Rose: column 2, lines 10-14). To help alleviate this problem, Rose discloses

"subtracting the second quantity of residual samples from the refined prediction

value to generate a final representation" (Rose: figure 5, wherein the second set

of residual samples is the multiple enhancement layers). Takashima teaches

that bit rate control operations become complex in prior art encoding systems

(Takashima: column 3, lines 10-14). To help alleviate this problem, Takashima

discloses an indicator "comprising one or more values associated with picture

level parameters" (Takashima: figure 8, column 2, lines 57-64, wherein the

picture level parameters is the picture type). Therefore, it would have been

obvious to one having ordinary skill in the art at the time the invention was made

to take the apparatus disclosed by Radha, add the subtraction method taught by

Rose, and add the processing taught by Takashima in order to obtain an

apparatus that operates more efficiently by being able to take advantage of

additional information given to a system without causing undesired

conflicts/complexity.

Regarding claims 2 and 13, Radha discloses "the first and second residual

samples are eight bit samples" (Radha: column 5, lines 37-45, wherein the pixel

represents one byte or eight bits).

Regarding claims 3, 14, and 17, Radha discloses "performing an inverse

discrete cosine transform of decoded transform domain representation of

residual differences to be added to the motion compensated prediction" (Radha:

figure 10, wherein the inverse discrete cosine transform is the inverse DCT, the

addition is performed by the adder (item 58), and the motion compensated

prediction is performed by the motion compensation block).

Regarding claims 4, 7, 12, and 18, although not disclosed, the region of

content could comprise a macroblock (Official Notice). Doing so would have

been obvious since macroblocks are well known in the MPEG environment.

Regarding claims 5 and 16, Radha discloses "generating a prediction of

media is performed by a graphics accelerator under the control of a decoder

application" (Radha: figure 10, wherein the accelerator comprises the motion

compensation and inverse DCT blocks).

Regarding claim 6, Radha discloses "sending prediction control

information necessary for generation of a motion compensated prediction to the

accelerator" (Radha: figure 10, wherein the accelerator comprises the motion

compensation and inverse DCT blocks, the prediction control information is the

enhancement and base layers and inverse quantization parameters), "sending an

indication and the samples to the accelerator of whether the first and second

samples are to be applied" (Radha: figures 5A and 8A, wherein the indication is

the process from moving from one layer to the next indicating there are layers

remaining), and "performing processing at the accelerator (Radha: figure 10,

wherein the accelerator comprises the motion compensation and inverse DCT

blocks which perform processing of the samples).

Regarding claim 11, note the examiners rejection for claims 5 and 6.

Regarding claims 15 and 20, Radha discloses the complementary

decoder performing the operations of the encoder disclosed in the preceding

claims. The decoder also comprises an "application program interface" (Radha:

column 9, lines 57-59, wherein the interface is the application that runs to obtain

the user input).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dave Czekaj whose telephone number is (571) 272-7327. The examiner can normally be reached on Monday - Friday 9 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DJC

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